

From: [McInnis, Amanda](#)
To: [Tina Laidlaw](#)
Cc: [Clark, Dave](#)
Subject: How well can WWTPs remove Nitrogen?
Date: 09/16/2011 02:27 PM

[attachment "0576_001.pdf" deleted by Tina Laidlaw/MO/R8/USEPA/US]

Tina—

I dug out the WERF report that I mentioned and scanned and sent a few pages, see the attached.

- Page 4-13 lists the different levels of treatment and offers an explanation of what each means
- The text on p 4-14 I think will answer your question about reliably achieving 1 mg/L TN
- The graphs on page 4-21 and 4-23 give the treatment plant performance data that I was talking about.
- Alexandria Sanitation Authority (ASA) participated in this study (Dave—if I've got the wrong acronym and that's a different plant, please let me know). Their 50% percentile performance is 4.72 mg/L TN, not 1 mg/L as you mentioned that someone at EPA HQ is mentioning.
- The graph on p 4-28 show what happens when we try to meet both N and P standards at the same time, which is what we are talking about doing here.

Let me know if have other questions.

Amanda

From: Brook Trout - Scanner [mailto:Brook.Trout@hdrinc.com]
Sent: Friday, September 16, 2011 1:45 PM
To: McInnis, Amanda
Subject: Attached Scan From Brook Trout